level [(4542.49±561.08) pg/ml vs (4035.11±432.65) pg/ml] in levosimendan group 24 hours after treatment. Much more improvement in dyspnea and leg swelling was seen in levosimendan group 48 hours after treatment. Heart rate was lower in levosimendan group [(73±7.4) bpm vs (87±8.1) bpm] ($P<0.05$). However, some adverse events occurred in levosimendan group and the total incidence of them was 14% (7 cases with hypotention, 3 cases with headache and 2 cases with hypokalemia).
Conclusions: In patients with DHF, intravenous levosimendan increased the force of cardiac contraction and provided rapid symptomatic relief. Levosimendan also increased the risk of adverse events. In order to decrease the adverse events related harm to the patients caused by levosimendan, nursing management may be of great value during the treatment. Especially in the first several hours of levosimendan treatment, adverse events should be monitored carefully. Once adverse events occur or symptoms get worse, they must be immediatly reported to the doctors to adjust the treatment.

GW25-e2186

Correlation of anemia and renal insufficiency, Neurohormonal Cytokines In Elderly Patients With Congestive Heart Failure and effects on ventricular remodeling

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Objectives: To investigate associations among anemia and renal insufficiency, Neurohormonal Cytokines Activation in Elderly patients with congestive heart failure (CHF), and study their influence on left ventricular mass index (LVMI), mean wall stress (MWS) and cardiac function.
Methods: 121 CHF patients were divided into the anemic group (n=47) and the non-anemic group (n=74), Hb concentration, renal function, serum tumor necrosis factor-α (TNF-α), soluble intercellular adhesion molecule-1 (sICAM-1), interleukin-1 (IL-6), AngiotensinII (AngII) were measured. left ventricular ejection fraction (LVEF), LVMI and MWS were measured by echocardiography.
Results: Hb concentration significantly decreased, and the level of BUN, Cr increased with deterioration of cardiac function in CHF patients. 38.8% of patients had anemia, and 24% had renal insufficiency. the anemia and renal insufficiency aggravated with decreaseing LVEF. TNF-α, sICAM-1, IL-6, AngII levels, LVMI and MWS were higher in the anemic patient group than those in the non- anemic subject group [(92.33±6.39) vs (55.63±10.16) ng/L, (253.58±25.96) vs (237.18±33.26) ug/L, (145.22±13.53) vs (106.5±20.36) ug/L, (144.53±64.12) vs (76.69±48.49) pg/ml, (187.7±8.5) vs (108.4±9.3) g/m^2 and (481.1±25.8) vs (361.8±23.1) dynes×10^3/cm^2, all $P<0.01$ respectively]. LVEF was significantly decreased in the anemic patient group compared with that in the non- anemic subject group[(33.94±5.23) vs (45.35±8.82) $P<0.01$], With the increased with the severity of anemia, the levels of TNF-α, sICAM-1, IL-6, AngII, LVMI and MWS significantly increased; there were positive correlation between LVMI, MWS and TNF-α, sICAM-1, IL-6, AngII levels ($P<0.01$), and a negative correlation between TNF-α, sICAM-1, IL-6, AngII, LVMI, MWS and Hb concentration ($P<0.01$).
Conclusions: Neurohormonal and Cytokines Activation play roles in pathophysiological and pathogenetic mechanism of the severity of ventricular remodeling and anemia, and the occurrence of anemia aggravates the change of ventricular remodeling in CHF.

GW25-e2336

Does alpha-1 blocker provide additional therapeutic benefits in multifactor acute heart failure patients? -a multi-center randomized and parallel-control trial between urapidil and nitroglycerin in Chinese elderly patients with DM and hypertension

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Objectives: To evaluate whether alpha-1blocker provide additional therapeutic benefits than other traditional medications which are currently employed in clinical setting, the safety and efficacy of urapidil and nitroglycerin on the treatment of elderly HF patients with hypertension and DM is investigated in a multi-center randomized and parallel-control trial study.
Methods: 72 elderly patients were randomized into two groups with urapidil (n=35; M/F=19/16) or nitroglycerin (n=37; M/F=20/17) treatment. Urapidil and nitroglycerin are deployed with microinfusion pump with the following concentration respectively: 50-300 mg / min (urapidil) and 5-20 mg /kg/min (nitroglycerin). Depot time for both of the drugs is adjusted according to individual clinical setting and lasts for about 48-140 hours. Blood pressure (BP), heart rate (HR), metabolic panel and cardiovascular function (NT-proBNP, EF, LVCO, LVEDV, ect.) are measured before and after the treatment (0 hour, 24 hours, 48 hours, 72 hours and 7 days).
Results: Patients with urapidil exerted significantly lower systolic blood pressure (SBP) than their counterparts in the nitroglycerin group. Moreover, urapidil effectively ameliorated the NT-proBNP level after treatment. In urapidil treatment group, EF, CI and LEDV patients were significantly improved compared to the patients with nitroglycerin treatment. Both of these two drugs caused a decrease of fasting plasma glucose (FPG). But, there was no significant difference in FPG of patients between urapidil- and nitroglycerin-treated groups.
Conclusions: Urapidil had better efficacy than nitroglycerin on lowering and stabilizing the SBP in elderly patients, attenuating the afterload and improving the cardiac function by affecting the EF, LEDV. Like nitroglycerin, Urapidil significantly reduced the FPG of HF patients with DM without causing adverse effects on metabolic profile in these patients. While offering an effective way for handling BP of multifactor HF patients who are complicated with hypertension and DM, Urapidil may provide additional therapeutic benefits to these patients. Urapidil may be another first-line medication in terms of its mild side effects.

GW25-e4371

Clinical Trial of Autologous Bone Mesenchymal cell Transplantation for Severe heart failure due to Dilated Cardiomyopathy

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Objectives: Experimental data have suggested that Bone Mesenchymal cell (MSC) may contribute to the healing of myocardial infarction (MI). We also have certified that MSC is effective in treating DCM, for this reason, we treat one dialated cardiomyopathy (DCM) patient with autologous BMCs.
Methods: One dialated cardiomyopathy (DCM) with heart failure patient were transplanted with autologous BMCs via the coronary artery. The ejection fraction (EF) was assessed by echocardiography before and 4, 8, 17, 21, 30, 60 days after MSC transplantation.
Results: The MSC Transplantation had significant sustained improvements in left ventricular ejection fraction from before transplant (0.26), to 4, 8, 17, 21, 30, 60 days after cell implantation (0.57, 0.52, 0.55, 0.53, 0.51, 0.45 respectively).
Conclusions: Our data demonstrate that intracoronary transplantation of autologous BMCs improved cardiac function in DCM patient with a markedly greater improvement. This approach opens a new window in the treatment of 'no hope' patients with congestive heart failure.

GW25-e1381

Analysis on the influence factors of perioperative heart failure in patients with acute STEMI undergoing emergency PCI

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Objectives: To analysis the related factors of perioperative heart failure in patients with acute STEMI undergoing emergency PCI.
Methods: The study involves 227 patients who suffered the first acute STEMI and accepted the treatment of emergency PCI. Record the general information of all patients including age, gender, the history of hypertension, diabetes, high cholesterol and smoking, the pain to balloon time, the site of myocardial infarction and the infarct related coronary artery and whether with multi vessel disease. Record the use of thrombus aspiration and tirofiban and the postoperative TIMI grade of blood flow and the. Record the specific numerical about WBC, the percentage of neutrophils, neutrophils to lymphocytes ratio (NLR) and mean platelet volume (MPV).Within 2 hours after PCI again for the 12 lead ECG and record the level of ST resolution (STR) compared with the ECG before PCI. Defined the STR ≤50% and the STR >50%. Record LVEF according to the cardiac ultrasound echocardiography one week after PCI. Define LVEF ≤45% as heart failure group and LVEF>45% as the non heart failure group. All the data were analyzed by statistical software SPSS17.0. The difference was statistically significant when $P<0.05$.
Results: Compared with the non heart failure group, in heart failure group, the average age (61.08±12.62 vs 57.66±10.78) is bigger, the average time of chest pain to balloon (5.41±3.24 vs 4.41±2.80) is longer, the proportion of the anterior descending branch as the infarct related coronary artery (65% vs 48%) is higher, the proportion of the anterior wall as the site of myocardial infarction (60% vs 35%) is higher, the proportion of using the tirofiban (24% vs 38%) is lower, the proportion of postoperative TIMI grade of blood flow <3 (11% vs 3%) is higher, the total number of WBC (11.43±3.05 vs 10.48±3.02) is bigger, the percentage of neutrophils (82.20±8.16 vs 73.58±13.45) is higher, the NLR (8.66±4.13 vs 5.25±3.47) is higher, and there were statistically significant differences between the two groups ($P<0.05$). Multi factor regression analysis showed that STR ≤ 50% 2 hours after PCI and long time of chest pain to balloon are two relatively independent risk factors of heart failure during perioperative period of emergency PCI. Linear correlation analysis showed that the age (r=-0.190, P=0.004), the total number of WBC (r=-0.134,